

ABSTRACT

A method to define a curved slab region of interest that includes vessels while maximally excluding surrounding soft tissue and bone is provided. The thickness of the curved slab is automatically adapted to the thickness of the vessel and follows the tortuous vessel(s) so that an increase in tortuosity does not result in a disproportionate increase in the region of interest required to enclose the vessel. A plurality of boundary pairs is determined in the view plane to define a vessel. Vessel-intensities are determined for each one of the boundary pairs. The boundary pairs with associated intensities define the view of the vessel in the projection plane. Context-intensity could be defined in the area surrounding the boundary pairs in the projection and/or transverse plane. The method also includes several steps that will result in a better boundary outline and view of the vessel.